

1050-35-90

Changfeng Gui* (gui@math.uconn.edu), 196 Auditorium road, U-9, University of Connecticut, Storrs, CT 06250. *Hamiltonian identities for PDEs and their applications.*

In this talk I will present hamiltonian identities for PDEs and systems of PDEs. I will also show some interesting applications of these identities to problems in phase transition, such as the proof of Young's law in triple junction configuration for a vector-valued Allen Cahn model and the derivation of a necessary condition for the existence of saddle solutions for Allen-Cahn equation with asymmetric double well potential. (Received March 04, 2009)